COMPONENTS:

- (1) Benzenesulfonamide, 4-amino-, monosodium salt (Na sulfanilamide); C₆H₇N₂NaO₂S; [10103-15-8]
- (2) 2-Propanone (acetone); C₃H₆O; [67-64-1]

ORIGINAL MEASUREMENTS:

Gutierrez, F. H.

Anales fis. quim. (Madrid) 1945, 41, 537-60.

VARIABLES:

Temperature

PREPARED BY:

R. Piekos

EXPERIMENTAL VALUES:

t/ ^o C	G ^a	Ep	x _g /1 ^c	mo1/1 ^d acetone	mmol/mol acetone	1:X _g ^e	$1 + x_{cc}^{f}$
10	0.240	0.239	1.927	9.9	0.72	416.66	518.94
20	0.248	0.247	1.962	10.1	0.74	404.86	509.68
30	0.256	0.255	2.000	10.3	0.77	392.16	500.00

 $a_{G} = \frac{p \cdot 100}{P - P}$, where p and P are the weights of solute and solution, resp.

AUXILIARY INFORMATION

METHOD/APPARATUS/PROCEDURE:

A special all-glass app was constructed enabling the prepn of satd solns, agitation by bubbling a stream of acetone-satd N, filtration, and distn off the solvent without the contact with air. Two exchangeable dissoln vessels of 15 and 8 cm³ working capacity were used depending on the soly of solute. The app was immersed in a thermostat. The vols of acetone used were 15 or 5 cm³ and the equilibration time was 2-2.5 h. The satd solns were filtered, weighed, the solvent was distd off, the residues were dried at 105°C, weighed, and examd for the presence of solvated acetone.

SOURCE AND PURITY OF MATERIALS:

The source of the materials was not specified. Pure, anhyd acetone was used. The absence of impurities and water was confirmed by procedures of the German Pharmacopeia VI and Spanish Pharmacopeia VIII.

The purity of Na sulfanilamide was not specified.

ESTIMATED ERROR:

Soly: measurements were repeated until obtaining 2 values not differing in the second decimal (author).

Temp: ±0.1°C (author).

REFERENCES:

b E = $\frac{G \cdot 100}{G + 100}$; c g/l acetone; d should be mmol/l acetone (compiler).

e g of acetone required to dissolve 1 g of solute;

f volume (cm³) of acetone required to dissolve 1 g of solute.